

MARINE CORPS WARFIGHTING LABORATORY

Mine Countermeasures (MCM) Experimentation and Science and Technology (S&T) initiatives are based upon recommendations derived from the Institute for Defense Analyses (IDA) and the Office of Naval Research (ONR) study "MCM from Beach Exit Zone to Objectives".

Background: The IDA/ONR MCM Study recommended near to far-term initiatives with an execution strategy to ensure that Marine Air-Ground Task Force (MAGTF) MCM will be a viable component of Expeditionary Maneuver Warfare. The Commanding General, Marine Corps Warfighting Laboratory (MCWL)/Vice Chief of Naval Research recommended four MCM experimentation evaluations during Fiscal Years 2003/04. These four evaluations will include: (1) Lightweight full-width mine rollers and mine extractors mounted on Light Armored Vehicles (LAVs) to breach assault lanes and clear mines on combat roads and trails, (2) Hydrema (medium weight) and Keiler (heavy weight) flails to rapidly clear both antipersonnel and antitank mines for laydown/beddown sites and for use in route clearance, (3) Individual protective systems to enhance survivability of dismounted personnel during mine clearance operations, and (4) Hand held detectors experimentation, including the Hand held Standoff Mine Detection System (HSTAMIDS).

In addition, three possible S&T initiatives were suggested to support MAGTF MCM during Fiscal Years 2005/06, these are: (1) Lightweight mechanical breaching systems for Marine Corps vehicles against all buried mines regardless of fusing type, (2) Advanced signature duplicators to be placed on both land and airborne platforms to neutralize top-attack, side-attack, anti-helicopter, and bottom-attack landmines (includes both manned and unmanned applications) and, (3) Family of tailored explosive systems that can attack specific mine belts or individual mines at standoff distances.

Those recommendations are endorsed by the Director, Strategy and Plans Division; Plans, Policy, and Operations; U.S. Marine Corps.

MINE COUNTERMEASURES MEU Capability Sets *fact sheet*



Specific MCWL focus/scope of effort was to assess the utility of tailored and scalable MCM Capability Sets incorporating select aforementioned technologies and those currently available for procurement in the near term (3 - 6 months).

Description: MCWL is focusing its efforts in the following areas: (1) Development of a Marine Expeditionary Unit (MEU) MCM Capability Set, (2) Follow-on experimentation of candidate technologies and, (3) Coordination with the Office of Naval Research on near- and far-term S&T initiatives.

Status:

- Transitioned to I MEF and II MEF for extended user evaluation.
- Final report to be completed by Naval Surface Warfare Center July 2005.
- Pending operating forces submission of UNS on the Capability Sets in order to allow MCCDC to validate the requirement prior to transitioning the sets as a capability.

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